Unit 2: Digital Drafting Fundamentals

Content Area: **Technology**
Course(s):
Time Period: **October**
Length: **8-9 Blocks**
Status: **Published**

Enduring Understandings

1. Drafting on a computer is very similar to drafting by hand

2. A computer is used as a tool to create further media for design communication

3. Drafting on a computer can be viewed as a style of design and is not always desirable for the presentation aesthetic

4. A combination of digital communication types can yield a stronger presentation

Essential Questions

1. How are computer drafting and manual drafting similar? How are they different Different?

2. What are a few advantages of Digital Drafting?

3. How has digital drafting changed architecture?

4. Why would combining communcation mediums be a valueable presentation style?

Content

Node, OSNAP, Dim, Snap to Grid, Scale, Plotter, Elevation Drawing, Presentation, Presentation Style, Hand Drafting, Hand Sketch,

Skills

1. Students will be able to use CAD Software to turn their sketched design concepts into a digital drawing

2. Students will be able to use CAD Software to visually communicate design details and specifications

3. Students will be able to identify the advantages that computers play in the design process

4. Students will be able to setup their CAD drawing file with the settings they will need for their drawing.

5. Create a design presentation using both manual and digital presentation styles.

6. Students will be able to turn a bubble diagram sketch into a working plan drawing.

Resources

AutoCAD / Prismacolor Markers / Drafting Pens / HB Pencil / Vellum / Plotter / Plotter Paper / Plotter Ink

Standards

CTE 9.3.12.AC-DES.4 - Apply building codes, laws and rules in the project design.

CTE 9.3.12.AC.4 - Evaluate the nature and scope of the Architecture & Construction Career Cluster and the role of architecture and construction in society and the economy.

8.1.12.F.1 - Evaluate the strengths and limitations of emerging technologies and their impact on educational, career, personal and or social needs.

8.1.12.E.3 - Use a programming language to solve problems or accomplish a task (e.g., robotic functions, website designs, applications, and games).

8.2.12.C.7 - Use a design process to devise a technological product or system that addresses a global problem, provide research, identify trade-offs and constraints, and document the process through drawings that include data and materials.